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RTD TODAY

Resources and Technology Division
Economic Research Service
U.S. Department of Agriculture, Washington, DC

A newsletter for employees
and colleagues of RTD

DECEMBER-JANUARY

FROM THE DIRECTOR'S OFFICE

As we enter a new year, I would like to share with you the priority research themes that RTD will emphasize in the coming year. The Section-by-Section Work Plan Reviews with RTD staff during 1992 provided an opportunity for in-depth dialogue on our research plans. I feel that this effort is reflected in the high quality of plans for the coming year, and I am encouraged by the feedback from the Administrator's Office on the review of our plans.

Comprehensive Resource Policy Evaluation

Analytic work is underway on conservation programs in anticipation of decisions to be made during the upcoming Clean Water Act reauthorization and development of the next Farm Bill. A number of reports are expected from our research under the Department's Water Quality Program. A comprehensive look at western water policy is also on the agenda and will soon be underway. These activities, coupled with the other comprehensive products identified in the Work Plan Reviews, should constitute an excellent body of research to support future policy decisions.

Economic Evaluation of Biodiversity and Sustainability

Implementation of the Endangered Species Act (ESA) has raised a number of issues for our research agenda including impacts of mitigation strategies to protect certain species of endangered salmon in the Pacific Northwest and in the Central Valley Project region of California. We will continue and expand our evaluations and inventory of the economic impacts and tradeoffs of implementation of the ESA. In many cases endangered species are viewed as indicators of declining biodiversity and sustainability of existing ecosystems. Likewise, agricultural land use issues both in this country and elsewhere have a strong landscape preservation or "countryside" dimension that is tied to the sustainability and diversity of existing land use systems. Our realigned research program gives new focus and emphasis to clarifying incentives for current production practices, evaluating the adoption of alternative technologies, and identifying production systems that are environmentally sensitive and sustainable.

FOOTNOTE: RTD Branch and other units are abbreviated in this letter, as follows:

Office of the Director (OD), Environmental and Health Risk Branch (E&HR), Land and Global Resources Branch (L&GR), Resource Policy Branch (RP), Water Branch (W), and Productivity and Emerging Technologies Branch (P&ET)

Information, Perceived Risk, and Food Safety

The newly formed Environmental and Health Risk Branch will assess the demand for and supply of human health and environmental quality related to agriculture and food production as well as examine health risk factors associated with agricultural chemicals used in farm production and food marketing. These research efforts will expand on RTD's involvement in the USDA's Pesticide Data Program (PDP), which is designed to provide a sound pesticide exposure assessment database for pesticide policy decisions and to inform the public on food safety. Our new research efforts will relate health/environmental characteristics of the food supply to agricultural production and marketing practices and estimate consumers' willingness to pay for environmental characteristics based on information available and perceived risk.

Environmental Costing/Accounting

RTD's program of productivity measurement is expanding to develop productivity indexes that incorporate environmental impacts of agricultural production. This work complements environmental valuation research that has been attempting to value (or cost) the off-site impacts of agricultural activities at the national and regional levels. These off-site impacts include water quality impairments and the degradation of ecosystems, wetlands, and freshwater and marine fishery resources.

These efforts are being given new focus and emphasis in our environmental costs and accounting effort. Our objective is to develop a framework for environmental accounts that provides information on the tradeoffs between agricultural and environmental services. We will establish a conceptual framework to provide a consistent set of environmental accounts, identify linkages between agricultural activities and environmental impacts, and value the environmental impacts. This approach will permit us to "cost out" the environmental impacts of policy decisions while moving toward comprehensive and consistent environmental accounts. A workshop to solicit input from a diverse group of policy and economics professionals is being arranged for this spring.

Commodity Program Decoupling/Green Resource Recoupling

Current research activities have been associated with assessing the implications of decoupling agricultural and trade programs. Yet, the nature of the next generation of programs that will affect agriculture has been given more limited attention. These "green recoupled" programs will focus on the environment, and be less tied to commodity program participation, e.g., Conservation Compliance. Our research efforts will focus on defining a set of generic policy options, identifying the critical attributes for which we can measure effects, and estimating the economic tradeoffs of the various policy options. In addition to considering new and modified policy options, the effort will also attempt to evaluate a broader set of policy criteria with respect to the impacts of "decoupling" and "green recoupling". A series of round table discussions to obtain broad input is being planned for this spring.

Technology Development, Transfer, and Adoption

Our investment over the last five years in building a RTD research program in technology is paying off as we see applications in a number of emerging issues including: adaptation to global climate change, trade and environment, water quality, environmental policy options, sustainable production systems, agricultural research, and irrigation and water policy. But we are also highlighting this research area because of recent technological and policy developments, especially in the area of biotechnology. The economic implications of regulatory policy developments both domestically and internationally, coupled with the agriculture sector impacts on output, competitiveness, environmental quality, and sustainability need to be identified and evaluated.

Geographic Information Systems

In recent years computerized systems for managing, integrating, and analyzing spatial data have become powerful tools for natural resource management and environmental planning. Given the growing interest in the United States and globally in the interface between agriculture and the environment, and in approaches to regulating agricultural activities to accomplish environmental objectives, it is increasingly important to have state-of-the-art technology in RTD to apply to analyses of these issues. Geographic Information Systems (GIS) technology can help us understand the environmental implications of agricultural policy, analyze the distributional consequences of environmental regulation in agriculture, and design well-targeted, cost-effective, environmental programs.

We are developing a GIS system within RTD, and are identifying and developing the GIS applications to an array of RTD policy issues that includes: Federal water quality policy options, future use of Conservation Reserve Program land, Swampbuster and Wetland Reserve Program issues, drought, the effects of global climate change and agricultural trade on the environment, and analyzing environmental health issues associated with agricultural chemicals.



JOHN A. MIRANOWSKI

PROGRAM HIGHLIGHTS

SUSTAINABLE AGRICULTURE RESEARCH UPDATE

RTD's research program has emphasized long-term concerns about resource use and changes in environmental quality. The new research program on sustainable agriculture will reinforce this orientation. Indeed, the *raison d'être* of sustainable agriculture is the belief that conventional agricultural production systems may not be sustained in the long-term because of their consequences for environmental quality and because of their inability to achieve an equitable intergenerational allocation of resources.

Sustainable Agriculture and the Presidential Initiatives --

Research in progress under the USDA's Food Safety Data and the Water Quality initiatives focuses on questions pertinent to sustainable agriculture. This research includes:

- development of "bad" inputs/ "bad" output indicators (e.g., environmental indicators),
- the impact of alternative policies on and valuation of "bad" input use/ "bad" output production (e.g., fertilizer charge or other disincentive policies),
- the economic and/or environmental consequences of shifting a production regime (e.g., continuous corn to corn/soybean rotation), and of changing regulatory measures, and,
- factors explaining adoption of IPM and other production practices, including crop rotation and conservation tillage.

This research, however, is limited because it relies on databases collected for purposes other than sustainable agriculture research. For example, there is no means of identifying observations on the much touted "ridge till" in current ERS surveys. Even if these observations could be flagged, they occur with a very low frequency. Serious research on sustainable agriculture must utilize new databases containing observations on some of the emerging sustainable technologies. A second limitation of ongoing research is its reliance on the "marginalist" paradigm for policy analysis. In many cases, the proposed sustainable technologies constitute a quantum change from conventional production technologies. The equation "sustainable agriculture = conventional agriculture minus some chemicals" (i.e., movement along an isoquant) simply does not hold. Rather, policy analysis should recognize the problem as one of *switching* from one distinct technology (conventional) to another (sustainable).

What About Intergenerational Equity? --

Sustainable agriculture research looks beyond conventional economic models that view sustainability as an "externalities" problem to focus on the underlying issue of intergenerational equity. An efficient path of resource depletion, given the existing intergenerational distribution of rights to those resources, is optimal only with respect to that existing distribution. Hence it may not be sustainable. Similarly, advocates of sustainable agriculture argue that the current system of farming is guilty of disregard for the interests of future generations. This suggests a need to address equity considerations in economic analyses of sustainability.

RTD's New Section --

The focus of work within the new Sustainable Production Systems Section will be to examine the economic tradeoffs associated with the adoption of sustainable agricultural systems, defined as systems of production which:

- reduce environmental damage in general and agrichemical use in particular,

- consider other intergenerational allocations of resources, and
- maintain the economic viability of farming and farm communities.

The Section's research program will include examination of agricultural and trade policies and programs that are seen to affect sustainable production systems and, by implication, the structure of the food-agricultural sector. Research will seek to determine the interactions between the current structure of production systems and supporting agricultural services as they relate to sustainability in the U.S. Environmental and intergenerational resource allocation effects of sustainable systems will also be evaluated.

The Fiscal Year 1993 Work Plan focuses on issue definition, on developing a database which can serve as a basis for future research, and research on some promising farming practices for sustainable agricultural production. An Agriculture Information Bulletin (AIB) on **Problems, Prospects and Strategies for Sustainable Agriculture in the U.S.** will develop a conceptual framework for sustainable production systems. Production systems evolve under the influence of resource endowments, consumer preferences, government policies and programs and available production techniques. The outcomes of these systems, when viewed broadly, include not only marketable output but environmental, economic and social effects with distributional consequences across groups of producers and consumers, and across time. The AIB will define sustainable agriculture's impact on the tradeoffs between these diverse outcomes.

The immediate objective of the database development effort is to produce a profile of sustainable production systems that describes sustainable farms and producers' perceptions of the benefits and costs of sustainable production systems. To accomplish this objective, we are beginning with a review of existing data sources, including results compiled from surveys conducted by the American Farmland Trust, Rodale Institute, and American Farm Bureau. The Section also will explore opportunities for collaborating on existing surveys that target sustainable farm operations. Another option is to design an independent national survey of alternative agriculture which would provide data to support future research.

A project to analyze the economics of adopting sustainable production practices has been initiated. Adoption of alternative farming practices is generally considered as an effective means to reduce excessive agricultural chemical use in order to enhance water quality and food safety with the least cost to society. A systematic economic evaluation of alternative farming practices will be conducted under this umbrella project, consisting of three studies. These studies are (1) developing a national accounting system of plant nutrients, (2) an economic and environmental assessment of the adoption of nitrogen inhibitors, and (3) estimating costs to producers of reducing agrichemical use in vegetable production.

In addition to RTD's research effort, staff have initiated jointly with the Commodity Economics Division (CED) a **Sustainable Agriculture Seminar Series** which has been quite successful, featuring speakers from universities, independent institutes, and from within ERS. RTD and CED staff collaborated on a **Symposium on Measuring Sustainability** at the AAEA meetings with inputs from economists, sociologists, and agricultural scientists. RTD and CED are also collaborating on an ongoing basis in **Agriculture In Concert with the Environment (ACE)**, EPA-CSRS funded cooperative research projects on sustainability. RTD staff helped to review the projects, and continue to be involved in project monitoring. Last February RTD Director John Miranowski participated as a member of the U.S. delegation to the OECD Ad Hoc Group on Agriculture and the Environment sponsored **Workshop on Sustainable Agricultural Technology and Practices** in Paris (RTD Today, January-February 1992). The Workshop grew out of concerns expressed during the Group's deliberations on the linkages between agriculture and the environment and the potential gains from agricultural policy reform in the OECD countries.

EVENTS AND ACTIVITIES

Great Plains Task Force --

Ralph Heimlich and Tim Osborn attended a meeting of an ad hoc task force convened by the Great Plains Agricultural Council (GPAC) to study what will happen to Conservation Reserve Program (CRP) land when contracts expire beginning in 1996. Tim presented results of USARM model simulations showing how much CRP land would return to production under varying scenarios for total U.S. demand. Ralph described current national and international policy developments that could contribute to the demand scenarios modeled. The group discussed future plans to analyze policy options that could mitigate the price, production, and environmental effects of CRP land returning to crop production.

The GPAC Task Force has been meeting since 1990 and hopes to have preliminary recommendations for the Council at this year's June meeting and final recommendations in a year. Tim and Ralph previously analyzed data from a national survey conducted by the Soil and Water Conservation Society for SCS to model producer's intentions for future use of CRP land. They summarized possible user acceptance of contract extensions, permanent easements, and other program options. Tim has also presented analyses from the GPAC Task Force to a USDA workgroup formed to recommend alternatives for the future of the CRP program. Additional simulations are planned for both groups that will use supplementary data gathered on a five percent sample of CRP contracts.

AAEA Meetings --

The American Agriculture Economics Association annual meeting was held in Baltimore, Maryland August 9-12. RTD staff was actively involved in the program. Those presenting selected papers included: Steve Crutchfield, Marc Ribaud, LeRoy Hansen, and Ricardo Quiroga, **Economic and Environmental Impacts of Water Quality Restrictions on Agriculture: An Application to Cotton Farming**; Roy Darwin, **Land Values and Technological Change**; Daniel Hellerstein and Robert Mendelsohn, **A Theoretical Foundation for Applying Count Data Models to Measure Recreation Values**; Biing-Hwan Lin, LeRoy Hansen, and Stan Daberkow, **Substitutability of Crop Rotations for Farm Chemicals**; Bruce Larson and George Frisvold, **Environmental Policy Uncertainty and Innovation**; Arun Malik, David Letson, and Steve Crutchfield, **Point-Nonpoint Trading of Pollution Abatement: Choosing the Right Trading Ratio**; Richard Nehring and Agapi Samaru, **An Environmental Analysis of Orange Production in California and Florida, and Chemical Use, Profitability and Environmental Sustainability in Corn Production**; Michael Ollinger and Jorge Fernandez-Cornejo, **Firm Entry and the Incidence of Contracting in the Biotech Industry**; Tim Osborn, **Farmer Intentions for Post Contract Conservation Reserve Program Acres: A Two-Limit Tobit Analysis**; Ricardo Quiroga, **A Profit Function Analysis of Technological Change and Output Growth in Dairy Production**; Ricardo Quiroga and Boris E. Bravo-Ureta (U. Conn.), **Alternative Functional Forms for Dual Profit Models of Dairy Production**; Robbin Shoemaker, **Evolution of Distortions and Producer Welfare Gains from Deficiency Payments: U.S. Feedgrain Programs, 1977-1990**; David Westenbarger and George Frisvold, **Air Quality and Land Productivity in the Northeastern United States, 1980-1985**; Jet Yee, **The Impact of Public and Private Agricultural Research on Productivity**.

Participants in organized symposia include: Stan Daberkow, organizer, **Crop Rotations as Substitutes for Synthetic Chemicals: Prospects, Policies, and Implications**; Biing-Hwan Lin, Ann Vandeman, and Utpal Vasavada, organizers, **How to Measure the Effects of Sustainable Agriculture: Proposals and Critiques**; Betsey Kuhn, presenter, **Cultural Diversity: The Professional Status of Women and African Americans in Agricultural Economics**; Stan Daberkow, presenter, **Impacts of the Transition to a Market Economy: New Needs and Opportunities in Poland**; Robert Kellogg, discussant, **Integrating Spatial Information into the Economic Decision Framework Using**

Geographic Information Systems (GIS).

In addition, Jorge Fernandez-Cornejo was moderator of the selected paper session, **Production Decision Making**; Robbin Shoemaker was moderator of the selected paper session, **Agricultural Policy, Trade, and Trade Negotiations**. RTD Director, John Miranowski, was an invited panelist for a discussion, **What Recruiters of Our Graduates Want**, at the Graduate Education Program Workshop, and was a discussant at the invited paper session, **Trade and the Environment**. Associate Director, Carol Kramer, was a facilitator at a free session, **U.S. Agriculture In 2012: Clear Visions of a Cloudy Future**. Tracy Dunbar was a presenter at the free session, **Racial and Ethnic Diversity in Agricultural Economics: How Can It Be Achieved?**

RTD posters included: **Input Use In Vegetable Production: A Summary of the 1990 Vegetable Chemical Use Survey** by David Shank, Ann Vandeman, and Ram Chandran; **Agricultural Activities and Chemical Use on the Delmarva Peninsula: Are They Related to Resource Characteristics?** by Russ Keim and Robert Kellogg; and **Agricultural Use of Pesticides and the Potential for Groundwater Contamination** by Robert Kellogg, Margaret Maizel (National Center for Resource Innovations) and Don Goss (Texas A&M)

RTD is also especially proud that Marca Weinberg, Resource Policy Branch, was awarded the AAEA Outstanding Ph.D. Dissertation Award.

Organizational Changes --

The organizational realignment of RTD's research program became effective at the beginning of Fiscal Year 1993. The reason for the organizational changes were discussed briefly in the last issue of **RTD Today**.

The new organization has five branches (see next page). The most dramatic change in the branches is the restructuring of the previous Agricultural Inputs Branch program to form the Environmental and Health Risk Branch. This Branch will examine in a broad-based manner the economics of alternative policy options to reduce health and environmental risk. The Branch will assess the demands for human health and environmental quality as they relate to agriculture and food production and examine health-risk factors associated with farm production and marketing practices. The response of the agricultural sector will be investigated as this sector adapts to changes in policies at the local, State, Federal, and international levels, as well as to changes in consumer demands.

The new Land and Global Resources Branch (formerly Land and Capital Assets) reflects new responsibilities in global climate change, adding sections on Global Resource Impacts and Domestic Resource Impacts. Land values and ownership research have been merged into one section. The new Productivity and Emerging Technologies Branch (formerly Resource Indicators) has added a section, Sustainable Production Systems, to give new focus to this important issue (see Program Highlights in this issue of **RTD Today** for more detail on this Section's program). The Water Branch has an added section, Water Quality Evaluation, which redirects previous soil conservation efforts to meet expanded responsibilities under the President's Water Quality Initiative. A number of sections have been renamed to be more reflective of evolving research and analysis activities.

The second major substantive consequence of the program realignment has been the establishment of "Coordinator" positions. Given the cross-branch nature of new and redirected activities, it has been necessary to establish "Core Teams" for water quality, food safety, global change, geographic information systems (GIS), energy, and surveys to coordinate program activities (including research, evaluation, and database development) not only across RTD but also with other USDA and Federal agencies. "Coordinator" positions are established under the Branch Chiefs who are directing the "Core Teams". A similar position is being formally established for situation and outlook activities.

Resources and Technology Division

Commercial Phone: (202) 219-0455 Commercial Fax: (202) 219-0477

Office of the Director

Director -- John A. Miranowski
Secretary -- Denice A. Bess

Associate Director -- Carol S. Kramer
Deputy Director for Technology -- Vacant
Deputy Director for Policy Research and Staff Analysis -- Margot Anderson
Assistant Director for Economics and Communications -- William Anderson
Assistant to the Director for Administration -- Leslee C. Lowstuter
Assistant to the Director for Policy -- Kenneth Robinson
Secretary -- Tammie Johnson
Secretary -- Cynthia Ray

Environmental and Health Risk Branch	Land and Global Resources Branch	Productivity and Emerging Technologies Branch	Resource Policy Branch	Water Branch
Acting Chief -- Carol S. Kramer Office Manager -- Rosa Pitts	Chief -- Betsey Kuhn Office Manager -- Roberta Atkinson	Chief -- Michael LeBlanc Office Manager -- Nicole Stafford	Chief -- Nicole Ballenger Office Manager -- Bridget Struggs	Chief -- Bill Hyde Office Manager -- Lucille Milligan
Section/Leader Production Strategies -- Biing-Hwan Lin	Section/Leader Land Values and Ownership - Vacant	Section/Leader Agricultural Productivity -- Eldon Ball	Section/Leader Environmental Policy Evaluation -- Vacant	Section/Leader Western Water Policy -- Michael Moore
Risk Management and Policy Analysis -- Vacant	Global Resources Impacts -- Vacant	Agricultural Research and Technology -- Margriet Caswell	Resources and International Policy -- Margot Anderson	Water Demand and Conservation -- Vacant
Demand for Risk Reduction-- Fred Kuchler	Domestic Resources Impacts -- Vacant	Resources Information Systems -- Merritt Padgitt	Resource and Commodity Policy -- Tim Osborn	Environmental Valuation -- Steve Crutchfield
International Environmental and Health Risk -- Vacant	Land and Capital Use -- Abe Tegene	Sustainable Productions Systems -- Vacant	Technology and Economic Policy -- Robbin Shoemaker	Water Quality Evaluation -- Vacant
Resource Situation and Outlook Coordinator -- Stan Daberkow	Global Climate Change Coordinator -- John Reilly	Survey and Database Coordinator -- Vacant	Energy Policy Coordinator -- Jim Hrubovcak	Endangered Species Act Evaluation Coordinator -- Vacant
Pesticide Data Program Coordinator -- Vacant	Water Quality Coordinator -- Marc Ribaudo			

PEOPLE

Welcome to ...

- Rachel Beattie (RP), M.S. in Agricultural Economics from University of California at Davis, B.S. in Environmental Studies, Yale University, who joined the Office of the Branch Chief.
- Peter Condon (L&GR), B.A. in Economics from Harvard University, who joined the Global Resources Impacts Section.
- Kelly Eakin (RP), formerly Department of Economics, University of Oregon, who joined the Environmental Policy Evaluation Section.
- Keith Fuglie (P&ET), formerly Rockefeller Foundation Research Fellow in Social Sciences, International Potato Center (CIP), Tunisia, who joined the Agricultural Research and Technology Assessment Section.
- Kimberly Glenn (OD), formerly with the Agricultural Stabilization and Conservation Service, USDA, who is an Office Automation Assistant in the Office of the Director.
- Ralph Heimlich (RP), who rejoined RTD from the Office of Policy and Program Evaluation, Environmental Protection Agency, as the new Geographic Information Systems Coordinator.
- Tracy Irwin-Hewitt (P&ET), M.S. in Agricultural Economics, B.A. in Economics, Michigan State University, who joined the Sustainable Production Systems Section.
- LeVale Jenkins (OD), formerly with Office of Personnel, USDA, who is an Office Automation Clerk in the Office of the Director.
- Tammie Johnson (OD), formerly at Resources for the Future, who is a Secretary in the Office of the Director.
- Sarah Lynch (E&HR), formerly Consultant, International Science and Technology Institute, who joined the Demand for Risk Reduction Section.
- Steven Nako (E&HR), Ph.D in Economics, University of Pennsylvania, who joined the Demand for Risk Reduction Section.
- Katherine Ralston (E&HR), Ph.D. in Agricultural and Resource Economics, University of California at Berkeley, who joined the Demand for Risk Reduction Section.
- Vanessa Sandidge (OD), who joined the Office of the Director as a Clerk.
- David Schimmelpfennig (L&GR), Ph.D. in Economics, Michigan State University, who joined the Global Resources Impacts Section.
- Nicole Stafford (P&ET), formerly with the Economics Management Staff, who is the new Branch Office Manager.
- Philip Szmedra (E&HR), who returned from a Peace Corps assignment in Morocco, and joined the International Environmental and Health Risk Section.

- Keith Wiebe (L&GR), formerly Research Associate, Land Tenure Center, University of Wisconsin, who joined the Land and Capital Use Section.

Appointment Changes ...

- Margot Anderson (OD), has been named Deputy Director for Policy Research and Staff Analysis.
- Stan Daberkow (E&HR), has been named Resource Situation and Outlook Coordinator.
- Jim Hrubovcak (RP), has been named Energy Policy Coordinator.
- Fred Kuchler (E&HR), is the new Leader, Demand for Risk Reduction Section.
- Betsey Kuhn (L&GR), is the new Chief of the Land and Global Resources Branch

Farewell to ...

- Bill Crosswhite (W), who retired after 28 years of service.
- Tracy Dunbar (W), who is pursuing graduate studies at Michigan State University.
- John Hostetler (W), who retired after 32 years of service.
- Robert Kellogg (RP), who accepted a position with the Soil Conservation Service.
- Olaf Kula (L&GR), who accepted a position in Niger with the National Cooperative Business Association.
- Rita McMillan (P&ET), who is pursuing graduate studies at the University of Florida.
- John Reilly (L&GR), who has an Intergovernmental Personnel Act appointment with the Center for Energy and Environmental Policy Research at Massachusetts Institute of Technology.
- Matt Rendelman (RP), who accepted a position with the Animal and Plant Health Inspection Service.
- Denise Rogers (L&GR), who accepted a position with the Minnesota Housing Finance Agency in St. Paul.
- James Tobey (RP), who accepted a position at the Organization for Economic Cooperation and Development (OECD) in Paris.

Our Interns

- Chris Behr (L&GR), who returned to the University of Wisconsin.
- Lisa Boyer (L&GR), who returned to South Carolina State College.
- Keith Burberry (P&ET), who entered graduate school at the University of Kentucky.
- Jessica Eide (P&ET), who returned to Oregon State University.
- Carolyn Farris (OD), who returned to Kansas State University.

- Carolyn Fischer (L&GR), who returned to the University of Michigan.
- Christina Fredericks (E&HR), who entered graduate school at the University of California at Davis.
- Phuong Hoang (OD), who returned to the University of Wisconsin.
- Rebecca Johnston (P&ET), who returned to Ohio and will enter graduate school at the University of Chicago in 1993.
- Ryan Moorhart (E&HR) who returned to South Carolina State College.
- Endi Piper (RP) who returned to the University of Virginia.
- Paris Reidhead (P&ET), who returned to Cornell University.
- Barbara Senatire (RP), who returned to Purdue University.
- Ellen Stroud (OD), who returned to Roanoke College.
- Cynthia Tyler (OD), who returned to Ohio University.
- Anne Young (P&ET), who returned to Spelman College.

and

- Ken Abrams (OD), who accepted a one year teaching position in Czechoslovakia.
- Shanika Hichman (OD), who entered the University of the District of Columbia.

Congratulations to..

- Ralph Heimlich (RP), who was named a Berg Fellow for 1992, at the Soil and Water Conservation Society Annual Meeting.
- Marca Weinberg (RP), who received the American Agricultural Economics Association Outstanding Ph.D. Dissertation Award, at the AAEA Annual Meeting.

PUBLICATIONS

(October 1991 - September 1992)

ERS/USDA PUBLICATIONS

Monographs

Bajwa, Rajinder, William Crosswhite, John Hostetler, and Olivia Wright. Agricultural Irrigation and Water Use. Agriculture Information Bulletin No. 638. January 1992. 116 pp.

Butler, Gertrude and J. Peter DeBraal. Foreign Ownership of U.S. Agricultural Land Through December 31, 1991: County-Level Data. ERS Staff Report No. AGES 9217. May 1992. 128 pp.

Canning, Patrick. Farm Buildings and Farmland: An Analysis of Capital Formation. Technical Bulletin No. 1801. February 1992. 50 pp.

DeBraal, J. Peter. Foreign Ownership of U.S. Agricultural Land Through December 31, 1991. Staff Report No. AGES-9211. April 1992. 60 pp.

Kane, Sally, John Reilly, and James Tobey. Climate Change: Economic Implications for World Agriculture. Agricultural Economic Report No. 647. October 1991. 21 pp.

Knudson, Mary and LeRoy Hansen. Intellectual Property Rights and the Private Seed Industry. Agricultural Economic Report No. 654. November 1991. 19 pp.

Ribaudo, Marc O. and Daniel Hellerstein. Estimating Water Quality Benefits: Theoretical and Methodological Issues. Technical Bulletin No. 1808. September 1992. 28 pp.

Rogers, Denise. Leasing Farmland in the United States. Staff Report No. AGES-9159. January 1992. 16 pp.

Wunderlich, Gene. Owning Farmland in the United States. Agriculture Information Bulletin No. 637. January 1992. 14 pp.

Periodicals

Douvelis, George (Coord.). Economic Indicators of the Farm Sector: Production and Efficiency Statistics, 1990. ECIFS 10-3. May 1992. 49 pp. Contributors to the report are:

Thelma Anderson
Harold Taylor

Arthur Daugherty
Marlow Vesterby

George Douvelis
Rachel Evans

Wunderlich, Gene and Jim Carlin (Eds.). Journal of Agricultural Economics Research. Vol. 43, Nos. 3, 4. 1991.

Articles

Heck, W., D. Ratloff, and G. Frisvold. **Air Quality and the Productivity of Crops and Forests**. Agriculture and the Environment. 1991 Yearbook of Agriculture. USDA. GPO. Washington, D.C. 1991. pp. 107-119.

Heimlich, Ralph E. and Arthur B. Daugherty. **American's Cropland: Where Does it Come From?** Agriculture and the Environment. 1991 Yearbook of Agriculture. USDA. GPO. Washington, D.C. 1991. pp. 3-9.

Situation and Outlook

Periodicals

Bull, Len and Harold Taylor (Coords.). Agricultural Resources: Inputs. Situation and Outlook Report. Nos. AR-24, AR-25. October 1991, February 1992. 47 pp, 68 pp. Contributors to the report are:

Len Bull
Herman Delvo

Mohinder Gill
Harold Taylor

Noel Uri
Marlow Vesterby

Hexem, Roger. (Coord.) Agricultural Resources: Agricultural Land Values. Situation and Outlook Summary. April 1992. 7 pp.

Hexem, Roger. (Coord.) Agricultural Resources: Agricultural Land Values and Markets. Situation and Outlook Report No. AR-26. June 1992. 47 pp. Contributors to the report are:

Patrick Canning
John Jones

J. Peter DeBraal
Fred Kuchler

Roger Hexem
Felix Llacuna

Padgitt, Merritt (Coord.) Agricultural Resources: Cropland, Water, and Conservation. Situation and Outlook Report. No. AR-27. September 1992. 38 pp. Contributors to the report are:

Marcel Aillery
Dwight Gadsby
Richard Magleby
Carmen Sandretto

Arthur Daugherty
Noel Gollehon
C. Tim Osborn

Clifford Dickason
John Hostetler
William Quinby

Articles

Babula, Ronald A., Douglas Duncan, and Utpal Vasavada. **Regional Responsiveness of Agricultural Interest Rates to U.S. Treasury Bill Rates**. Agricultural Income and Finance. Situation and Outlook Report No. AFO-43. December 1991. pp. 37-41.

Crosswhite, William and Carmen Sandretto. **Trends in Resource Protection Policies in Agriculture**. Agricultural Resources: Cropland, Water, and Conservation. Situation and Outlook Report No. AR-23. September 1991. pp. 42-49.

Daugherty, Arthur. **Flex Acres and Cropland Use**. Agricultural Outlook. AO-180. ERS, USDA. November 1991. pp. 25-27.

Denbaly, Mark, Utpal Vasavada and Eldon Ball. **Productivity Linkages in the U.S. Agricultural Economy**. Agricultural Outlook. AO-185. ERS, USDA. May 1992. pp. 27-29.

Gertel, Karl, John T. Scott, Jr. and John Jones. **Farmland Prices, Past and Prospective**. Agricultural Resources: Agricultural Land Values and Markets. Situation and Outlook Report No. AR-26. June 1992. pp. 37-42.

Gianessi, Leonard P., and Cynthia A. Puffer. **Reregistration of Minor Use Pesticides: Some Observations and Implications**. Agricultural Resources: Inputs. Situation and Outlook Report No. AR-25. February 1992. pp. 52-60.

Gill, Mohinder and Stan Daberkow. **Crop Sequences Among 1990 Major Field Crops and Associated Farm Program Participation**. Agricultural Resources: Inputs. Situation and

Outlook Report No. AR-24. October 1991. pp. 39-46.

Gollehon, Noel. **California Drought Lingers...** . Agricultural Outlook. AO-189. ERS, USDA. September 1992. pp. 21-25.

Heimlich, Ralph. **New Wetland Definition Debated.** Agricultural Outlook. AO-180. ERS, USDA. November 1991. pp. 22-25.

Hexem, Roger. **Farmland Values Rising More Slowly.** Agricultural Outlook. AO-178. ERS, USDA. September 1991. pp. 18-20.

Lin, Biing-Hwan, LeRoy Hansen, Stan Daberkow, and Michael Dreitzer. **Substitutability of Crop Rotations for Agrichemicals: Preliminary Results.** Agricultural Resources: Inputs. Situation and Outlook Report No. AR-24. October 1991. pp. 24-29.

Osborn, C. Tim. **CRP Enrollment Continues Eastward Shift.** Agricultural Outlook. AO-179. ERS, USDA. October 1991, pp. 22-24.

Rendleman, Matt. **Corn's Link to Sugar: HFCS.** Agricultural Outlook. AO-178. ERS, USDA. September 1991. pp. 12-14.

Ribaudo, Mark and Danette Woo. **Summary of State Water Quality Laws Affecting Agriculture.** Agricultural Resources: Cropland, Water, and Conservation. Situation and Outlook Report No. AR-23. September 1991. pp. 50-54.

Rogers, Denise M. **Characteristics of Farmland Owners and Their Participation in the Farmland Market, 1970-1988.** Agricultural Resources: Agricultural Land Values and Markets. Situation and Outlook Report No. AR-26. June 1992. pp. 43-47.

Taylor, Harold H. **Fertilizer Application Timing.** Agricultural Resources: Inputs. Situation and Outlook Report No. AR-24. October 1991. pp. 30-38.

Uri, Noel D. **Forecasting the Prices Paid for Farm Inputs.** Agricultural Resources: Inputs. Situation and Outlook Report No. AR-25. February 1992. pp. 35-39.

Uri, Noel D. and Kelly Day. **Energy Efficiency, Technological Change, and the Dieselization of U.S. Agriculture.** Agricultural Resources: Inputs. Situation and Outlook Report No. AR-25. February 1992. pp. 40-45.

ARTICLES AND OTHER PUBLICATIONS

- Amacher, Gregory S., Richard Brazee, and Tom Thomson. **The Effects of Forest Productivity Taxes on Timber Stand Investment and Rotation.** Forest Science. Vol. 37, No. 4. September 1991. pp. 1099-1118.
- Anderson, Margot and D. Grier. **Robust Nonparametric Measures of Exchange Rate Variability.** Applied Economics. Vol. 24. 1992. pp. 951-958.
- Ballenger, Nicole and Carl Mabbs-Zeno. **Feeding Urban Poor in the Nation's Capital: An Interview with Rev. Charles Parker.** Choices. Second Quarter 1992. pp. 10-13
- Ballenger, Nicole. **Discussion of "Lessons from the Canadian - U.S. Free Trade Agreement," by Colin Carter, et.al.** North American Free Trade Agreement: Implications for California Agriculture. Proceedings of a UC Agricultural Issues Center Conference. University of California. July 1992.
- Ball, V. Eldon. **Sources of Agricultural Economic Growth and Productivity: Discussion.** American Journal of Agricultural Economics. Vol. 74. 1992. pp. 764-765.
- Ball, V. Eldon, Jean-Christophe Bureau and Jean-Pierre Butault and Heinz-Peter Witzke. **The Stock of Capital In European Community Agriculture.** Les Cahiers de Grignon n°92/08 INRA Economie et Sociologie Rurales. 16 pp.
- Caswell, Margriet F. **Irrigation Technology Adoption Decisions: Empirical Evidence.** A. Dinar and D. Zilberman (Eds.). The Economics and Management of Water and Drainage in Agriculture. Kluwer Academic Publishers. Boston, Massachusetts. 1991. pp. 295-312.
- Caswell, Margriet F. **Review.** R. Gottlieb and M. FitzSimmons. Thirst for Growth: Water Agencies as Hidden Government in California, in Journal of Regional Science. Vol. 32, No. 2. May 1992. pp. 255-257.
- Daberkow, Stan and E. Douglas Beach. **Circle of Polson Legislation.** Choices. December 1991. pp. 24-27.
- Dickason, Cliff. **Why Aren't More Economists Rich?** Review of Donald N. McCloskey, If You're So Smart, in Journal of Agricultural Economics Research. Vol. 44, No. 1. September 1992. pp. 47-48.
- Dumagan, Jesus C. and Timothy D. Mount. **Measuring the Consumer Welfare Effects of Carbon Penalties: Theory and Applications to Household Energy Demand.** Energy Economics. Vol. 14, No. 2. April 1992. pp. 82-93.
- Ferguson, Walter and William Lindamood. **Use of Professional Cotton Scouts and Associated Yield and Pesticide Use.** Proceedings: The 1992 Beltwide Cotton Conference. Nashville, Tennessee, January 1992.
- Ferguson, Walter L., Joe Moffitt, and R. Michael Davis. **Short-Run Welfare Implications of Restricting Fungicide Use in Vegetable Production.** Journal of Agribusiness. Vol. 10, No. 1. pp. 41-50.
- Fernandez-Cornejo, Jorge. **Short- and Long-Run Demand and Substitution of Agricultural Inputs.** Northeastern Journal of Agricultural and Resource Economics. Vol. 21. April 1992. pp. 27-49.
- Fernandez-Cornejo, Jorge, C.M. Gempesaw, J.G. Elterich and S.E. Stefanou. **Dynamic Measures of Scope and Scale Economies and the Dynamic Theory of the Firm.** American Journal of

Agricultural Economics. Vol. 74, No. 2. May 1992. pp. 329-342.

- Gadsby, Dwight M. **Not for the Cynic: A Gentle Approach to Personal Discovery**. Review of Kenneth E. Boulding. Three Faces of Power. Sage Publications. Newburg Park, California. 1989, in Journal of Agricultural Economics Research. Vol. 43, No. 3. 1991. pp. 46-47.
- Gollehon, Noel R., Michael R. Moore, Marcel Aillery, Mark Kramer, and Glenn Schaible. **Modelling Western Irrigated Agriculture and Water Policy: Climate Change Considerations**. John M. Reilly and Margot Anderson (Eds.). Economic Issues in Global Change: Agriculture, Forestry, and Natural Resources. Westview Press. Boulder, San Francisco, Oxford. 1992. pp. 148-167.
- Guenthner, J.F., B.H. Lin, and A.E. Levi. **The Influence of Microwave Ovens on the Demand for Fresh and Frozen Potatoes**. Journal of Food Distribution Research. September 1991. pp. 45-52.
- Hansen, LeRoy, and Hyunok Lee. **Estimating Farm Tractor Depreciation: Tax Implications**. Canadian Journal of Agricultural Economics. Vol. 39, No. 3. November 1991.
- Hansen, LeRoy. **Farmer Response to Changes in Climate: The Case of Corn Production**. Journal of Agricultural Economics Research. Vol. 43, No. 4. Winter 1991. pp. 18-25.
- Hauver, James H. and Jet Yee. **Note: Morrison's Measure of Capacity Utilization, A Critique**. Journal of Econometrics. Vol. 52. 1992. pp. 403-406.
- Heimlich, Ralph. **Soil Erosion and Conservation Policies in the USA**. N. Hanley (Ed.). Farming and the Countryside: An Economic Analysis of External Costs and Benefits. CAB International. Redwood Press Ltd. Melksham, UK. 1991. pp. 59-90.
- Heimlich, Ralph and Marlow Vesterby. **Farmland Loss to Urban Encroachment No Threat to U.S. Agriculture**. Rural Development Perspectives. Vol. 8, No. 1. October 1991. pp. 2-7.
- Hellerstein, Daniel. **Estimating Consumer Surplus in the Censored Linear Model**. Land Economics. Vol. 16, No. 1. February 1992. pp. 83-92.
- Hellerstein, Daniel. **The Treatment of Nonparticipant in Travel Cost Analysis and Other Demand Models**. Water Resources Research. Vol. 28. August 1992. pp. 1999-2004.
- Hellerstein, Daniel, R. Mendelsohn, M. Huguenin, R. Unsworth, and D. Brazee. **Measuring Hazardous Waste Damages with Panel Models**. Journal of Environmental Economics and Management. Vol. 22. 1992. pp. 259-271.
- Herrmann, M.L., R.C. Mittelhammer, and B.H. Lin. **Applying Almon-type Polynomials in Modelling the Seasonality of the Japanese Demand for Salmon**. Marine Resource Economics, Vol. 7, No. 1. Spring 1992. pp. 3-13.
- Huang, Wen-Yuan and Noel Uri. **An Assessment of Planting Flexibility Options to Reduce the Excessive Application of Nitrogen Fertilizer in the United States of America**. Environment and Planning. Vol. 24. 1992. pp. 199-213.
- Huang, Wen-Yuan and Noel Uri. **The Effects of Alternative Policy Options Designed to Reduce Nitrogen Fertilizer Use**. Environmental International. Vol. 18. 1992. pp. 29-41.
- Huang-Yuan and Bengt Hyberg. **Determination of a Variable Price Support Schedule as Applied to Agricultural Production Control**. Journal of Agricultural Economics Research. Vol. 43, No. 3. Summer 1991. pp. 26-32.

- Huang, Wen-Yuan, David Westenbarger, and Karen Mizer. **The Magnitude and Distribution of U.S. Cropland Vulnerable to Nitrate Leaching.** Proceedings: Making Information Work Conference. National Governors Association. January 1992. pp. 177-196.
- Hyde, William F. **The Productivity of Forestry Research: Recent Experience from Five US Industries and Its Implications for the Rest of the World.** D. Newman and B. Seldon (Eds.) U.S. Forest Service General Technical Report. NE-157. 1991.
- Hyde, William F. **Social Forestry: A Working Definition and 21 Testable Hypotheses.** Journal of Business Administration. Vol. 20. 1992.
- Hyde, William F. and D. Wear. **Redistributive Issues in Forest Policy.** Journal of Business Administration. Vol. 20. 1992.
- Hyde, William F. and B. Seldon. **Productivity and Welfare Effects of Government R&D in the U.S. Softwood Lumber Industry.** Annals of Public and Comparative Economics. Vol. 62, No. 2. 1991. pp. 239-62.
- Hyde, William F. and B. Seldon. **Welfare Gains from Wood Preservatives Research.** Journal of Agricultural Economics Research. Vol. 43, No. 1. Winter 1991. pp. 22-39.
- Hyde, William F. **Review.** Joe P. Matthey. The Timber Bubble that Burst in Forest Science. Vol. 38, No. 1. February 1992. pp. 211-212.
- Hyde, William F. **Review.** R. Sedjo and K. Lynn. The Long-Term Adequacy of World Timber Supply in American Journal of Agricultural Economics. Vol. 73, No. 3. February 1992. pp. 242-243.
- Hyde, William F., P. Nemetz and R. Sedjo. **Emerging Issues in Forest Policy.** Vancouver: University of British Columbia Press. 1992.
- Kane, Sally M., John M. Reilly, and James Tobey. **A Sensitivity Analysis of the Implications of Climate Change for World Agriculture.** John M. Reilly and Margot Anderson (Eds.) Economic Issues in Global Climate Change: Agriculture, Forestry, and National Resources. Westview Press. Boulder, San Francisco, Oxford. 1992. pp. 117-131.
- Kim, C.S., William Lin, and Mack Leath. **The Changing Structure of the U.S. Flour Milling Industry.** Journal of Agricultural Economics Research. Vol. 43, No. 3. Summer 1991. pp. 18-25.
- Letson, David. **Point-Nonpoint Source Pollution Reduction Trading: An Interpretive Survey.** Natural Resources Journal. Vol. 32, No. 2. April 1992. pp. 70-77.
- Letson, David. **Simulation of a Two-Pollutant, Two-Season Pollution Offset System for the Colorado River of Texas Below Austin.** Water Resources Research. Vol. 28, No. 5. May 1992. pp. 1311-1318.
- Larson, Bruce A. and Harry Vroomen. **Nitrogen, Phosphorus and Land Demands at the Regional Level: A Primal Approach.** Journal of Agricultural Economics. Vol. 40, No. 2. September 1991. pp. 354-364.
- Larson, Bruce A. and D.W. Bromley. **National Resource Prices, Export Policies, and Deforestation: The Case of Sudan.** World Development. Vol. 19, No. 10. October 1991. pp. 1289-1297.
- Larson, Bruce A. and M.K. Knudson. **Public Regulation of Biotechnology Field Tests: Economic Implications of Alternative Approaches.** American Journal of Agricultural Economics. Vol. 73, No. 4. November 1991. pp. 1074-1082.

- Lewandowski, J.K. and R.J. Brazee. **Farm Programs and Climate Change: A First Look.** John M. Reilly and Margot Anderson (Eds.). Economic Issues in Global Climate Change: Implications for Agriculture, Forestry, and Natural Resources. Westview Press. Boulder, San Francisco, Oxford. 1992. pp. 132-147.
- Lin, Biing-Hwan and Larry D. Makus. **Japanese Barley Imports: Implications of the 1988 Japanese Beef Market Access Agreement.** Canadian Journal Agricultural Economics. Vol. 31. November 1991. pp. 423-437.
- Lin, Biing-Hwan, and Hiroshi Mori. **Evaluations of the New Beef Carcass Grade: A Hedonic Price Analysis.** Journal of Rural Economics. (Japan). Vol. 63, No. 4. March 1992. pp. 227-238.
- Lin, Biing-Hwan, Joseph F. Guenthner, and Annette E. Levi. **Forecasting Japanese Frozen Potato Imports.** Journal of International Food and Agribusiness Marketing. Vol. 3, No. 4. March 1992. pp. 55-67.
- Lin, Biing-Hwan and Hiroshi Mori. **Values of Beef Carcass Characteristics In Japan.** Annual Bulletin of Senshu Social Science Research Institute. (Japan). No. 26. March 1992. pp. 258-306.
- Malik, A.S. and R.M. Schwab. **The Economics of Tax Amnesties.** Journal of Public Economics. Vol. 46, No. 1. October 1991. pp. 29-49.
- Malik, A.S. **Permanent versus Interim Regulations: A Game Theoretic Analysis.** Journal of Environmental Economics and Management. Vol. 21, No. 2. September 1991. pp. 127-139.
- Moore, Michael, Donald Negri, and John A. Miranowski. **Cropland Allocation Decisions: The Role of Agricultural Commodity Programs and the Reclamation Program.** A. Dinar and D. Zilberman (Eds.). The Economics and Management of Water and Drainage in Agriculture. Kluwer Academic Publishers. Boston, Massachusetts. 1991. pp. 575-596.
- Mori, H., B.H. Lin, and N. D. Uri. **The Nature and Extent of the Market for High Quality Beef In Japan Before the Abolition of Import Quotas.** Applied Economics. Vol. 24, No. 3. pp. 761-773. 1992.
- McGuckin, J. Thomas, Noel R. Gollehon, and Soumen Ghosh. **Water Conservation In Irrigated Agriculture: A Stochastic Production Frontier Model.** Water Resources Research. Vol. 28, No. 2. February 1992. pp. 305-312.
- Osteen, Craig D., Ron Davis, and Kent Smith. **Potential Economic Effects of Banning Cotton Pesticides: Preliminary Results of the USDA/State Cotton Assessment.** Proceedings: 1992 Beltwide Cotton Conference. Nashville, Tennessee. January 1992.
- Quiroga, Ricardo and B. Bravo-Ureta. **Short- and Long-run Adjustments In Dairy Production: A Profit Function Approach.** Applied Economics. Vol. 24. 1992. pp. 607-616.
- Reilly, John M. **Economic Modeling of Global Climate: Comparing Approaches.** James C. White (Ed.). Global Climate Change: The Economic Costs of Mitigation and Adaptation. Elsevier Science Publishing Co., New York. 1991. pp. 315-326.
- Reilly, John M. **Modeling Global Biomass Supply.** B.J. Basfield, J.F. Clarke, O.J. Loewer, and M. Collins (Eds.) Global Biomass Workshop Proceedings. Department of Agricultural Engineering: University of Kentucky. 1991. pp. 24-34.

- Reilly, John M. and Margot Anderson (Eds.) Economic Issues in Global Climate Change: Agriculture, Forestry and Natural Resources. Westview Press. Boulder, San Francisco, Oxford. 1992. pp. 460
- Reilly, John M. **Climate Change Demand and the Trace-Gas-Index Issue**. John M. Reilly and Margot Anderson (Eds.). Economic Issues in Global Climate Change: Agriculture, Forestry, and Natural Resources. Westview Press. Boulder, San Francisco, Oxford. 1992. pp. 72-90.
- Ribaudo, M.O. and S.L. Piper. **Estimating Changes In Recreational Fishing Participation from National Water Quality Policies**. Water Resources Research. Vol. 27, No. 7. 1991. pp. 1757-2763.
- Ribaudo, M.O. **Options for Agricultural Nonpoint Source Pollution Control**. Journal of Soil and Water Conservation. Vol. 47, No. 1. 1992. pp. 42-46.
- Richards, Kenneth. **Policy and Research Implications of Recent Carbon Sequestering Analysis**. John M. Reilly and Margot Anderson (Eds.). Economic Issues in Global Climate Change: Agriculture, Forestry, and Natural Resources. Westview Press. Boulder, San Francisco, Oxford. 1992. pp. 288-308.
- Schaible, Glenn D., C.S. Kim, and Norman K. Whittlesey. **Water Conservation Potential from Irrigation Technology Transitions in the Pacific Northwest**. Western Journal of Agricultural Economics. Vol. 16, No. 2. December 1991. pp. 194-206.
- Shoemaker, Robbin. **USDA Water Quality Data Collection Effort**. Issues in Water Resource and Outdoor Recreation Economics. Southern Natural Resource Economics Committee Pub. No. 29. December 1991. pp. 18-27.
- Stefanou, S.E., J. Fernandez-Cornejo, C.M. Gempesaw, and J.G. Elterich. **Dynamic Structure of Production under a Quota: The Case of Milk Production in the Federal Republic of Germany**. European Review of Agricultural Economics. Vol. 19. 1992. pp. 283-299.
- Tegene, A., and F. Kuchler. **A Description of Farmland Investor Expectations**. Journal of Real Estate Finance and Economics. Vol. 4, No. 3. September 1991. pp. 283-296.
- Tegene, A., and F. Kuchler. **An Error Correcting Model of Farmland Prices**. Applied Economics. Vol. 23, No. 11. November 1991. pp. 1741-1747.
- Tegene, A. **Results of a Price-Forecasting Competition: Comment**. American Journal of Agricultural Economics. Vol. 73, No. 4. November 1991.
- Tobey, James and Kenneth Reinert. **The Effects of Domestic Agricultural Policy Reform on Environmental Quality**. Journal of Agricultural Economics Research. Vol. 43, No. 2. 1991. pp. 20-28.
- Uri, Noel D. and Kelly Day. **Energy Efficiency, Technological Change, and the Dieselization of Agriculture in the United States**. Transportation Planning and Technology. Volume 16. 1992. pp. 221-231.
- Uri, Noel D. and Kelly Day. **The Trend in Diesel Fuel Consumption by Farms in the United States**. Economic Planning. Vol 27, No. 5. October 1991. pp. 3-9.
- Vasavada, Utpal. **Trade Policy Implications of Sustainable Agriculture**. Canadian Journal of Agricultural Economics. Vol. 39. 1991. pp. 593-605.

- Vroomen, Harry. **A Short-Run Forecasting Model for Nitrogen Fertilizer Prices.** Agribusiness: An International Journal. Vol. 7, No. 6. November 1991. pp. 515-522.
- Weinberg, Marca and Z. Willey. **Creating Economic Solutions to the Environmental Problems of Irrigation and Drainage.** A. Dinar and D. Zilberman (Eds.). The Economics and Management of Water and Drainage in Agriculture. Kluwer Academic Publishers. Boston, Massachusetts. 1991. pp. 531-556.
- Westenbarger, David, Roy Boyd, and Chulho Jung. **Welfare Gains from Aluminum Recycling in the USA.** Resources Policy. December 1991. pp. 332-341.
- Yee, Jet. **Effect of Consumption Standards on U.S. Gasoline Consumption.** Journal of Policy Modeling. Vol 13, No. 2. Summer 1991. pp. 205-227.
- Yee, Jet. **Assessing Rates of Return to Public and Private Agricultural Research.** Journal of Agricultural Economics Research. Vol. 44, No. 1. 1992. pp. 35-41.

PAPERS, SPEECHES, SEMINARS

- Ball, Eldon, Knox Lovell, Richard Nehring, and Agapi Somwaru. **Modeling Production When Some Outputs are Undesirable.** Southern Regional Information Exchange Group Meeting on Sustainable Development and Resource Use. New Orleans, Louisiana. May 14, 1992.
- Ball, V. Eldon. **Sources of Agricultural Economic Growth and Productivity: Discussion.** Agricultural Economic Association Meetings. New Orleans, Louisiana. January 2-5, 1992.
- Buist, Henry. **Firm Relocation, Suburbanization and Central City Problems.** Western Regional Science Association Meetings. Lake Tahoe, Nevada. February 23-27, 1992.
- Bull, Len, Herman Delvo and Carmen Sandretto. **Pesticide Use by Tillage System: 1988 and 1989 Corn and Soybeans.** ARS Residue Management Workshop, Kansas City, Missouri. March 31 - April 2, 1992.
- Canning, Patrick. **A Methodology for Environmental Impact Analysis Using Rent Data.** Western Regional Science Association Meetings. Lake Tahoe, Nevada. February 23-27, 1992.
- Canning, Patrick. **Market Price of Land as a Measure of Welfare.** The Ownership, Tenure, and Taxation of Agricultural Land Seminar. Robert Schalkenback Foundation, Farm Foundation, ERS. Washington, D.C. October 3-4, 1991.
- Caswell, Margriet and Robbin Shoemaker. **Altering Pesticide Use to Protect Groundwater Quality.** Western Economic Association Meetings. San Francisco, California. July 9-13, 1992.
- Chambers, Robert G. and Hyunok Lee. **Externalities, Sharecropping, and Social Efficiency.** The Ownership, Tenure, and Taxation of Agricultural Land Seminar. Robert Schalkenback Foundation, Farm Foundation, ERS. Washington, D.C. October 3-4, 1991.
- Chandran, Ram. **A Stochastic Dominance Analysis of Yield Effects of Chemical Use on Vegetable Farms.** Symposium on Sustainable Agriculture. American Chemical Society. San Francisco, California. April 1992.
- Cooper, Joseph. **A Bioeconomic Model for Estimating the Optimal Level of Deer Tag Sales.**

Western Economic Association Meetings. San Francisco, California. July 9-13, 1992.

Crutchfield, Stephen R. **Federal and State Policies In Water Quality.** Great Plains Agricultural Council Meeting. Lincoln, Nebraska. June 10, 1992.

Daberkow, Stan G. and Wen-Yuan Huang. **Risks In Crop Cultivation and Their Influences on the Application of Economic Indicators.** FAO-FIAC Meeting. Rome, Italy. April 15, 1992.

Daberkow, Stan. **Agricultural Input Price Perspective.** Southern Regional Agricultural Outlook Conference. Atlanta, Georgia. September 23-24, 1991.

Day, Kelly and George B. Frisvold. **Medical Research and the Management of Genetic Resources: the Case of Taxol.** Western Economics Association Meetings. San Francisco, California. July 9-13, 1992.

DeBraal, J. Peter. **Farm Real Estate Taxes.** The Ownership, Tenure, and Taxation of Agricultural Land Seminar. Robert Schalkenback Foundation, Farm Foundation, ERS. Washington, D.C. October 3-4, 1991.

Ferguson, Walter and Jet Yee. **A Logit Model of Cotton Producer Participation In Commercial Scout Programs.** Western Agricultural Economics Association Meetings. Colorado Springs, Colorado. July 12-15, 1992.

Fernandez-Cornejo, Jorge, E. Douglas Beach, and Wen-Yuan Huang. **The Influence of Grower Attributes on the Adoption of IPM Techniques In Vegetable Production In Three States.** Western Agricultural Economics Association Meetings. Colorado Springs, Colorado. July 12-15, 1992.

Fernandez-Cornejo, Jorge. **The Demand for Chemical Inputs In Agriculture and Policies for Reducing Their Use In the Central Corn Belt.** Southern Agricultural Economics Association Meetings. Lexington, Kentucky. February 1992.

Frisvold, George and Bruce Larson. **Induced Innovation Under Price Uncertainty.** Western Economics Association Meetings. San Francisco, California. July 9-13, 1992.

Frisvold, George and Margriet Caswell. **Interagency Contracts: Bargaining vs. Regulation.** Western Economics Association Meetings. San Francisco, California. July 9-13, 1992.

Gertel, Karl. **A Non Econometric Approach to Land Value Research.** North Central Land Values Committee (NCR-123) Meeting. St. Paul, Minnesota. October 10-11, 1991.

Gertel, Karl and Linda Atkinson. **Structural Models and Some Automated Alternatives for Forecasting Farmland Prices.** Fourteenth Annual Federal Forecasters Conference. Washington, D.C. September 12, 1991.

Hanson, LeRoy and Tracy Dunbar. **The Value of Streamflow as a Recreational Fishery Resource.** Western Economics Association Meetings. San Francisco, California. July 9-13, 1992.

Hellerstein, D. **CALC: A Calculator Program for Personal Computers.** CALC is a sophisticated calculator program for IBM-PCs compatibles. It has the ability to define variables and functions to compute and simplify analytic derivatives and output in WP 5.1 equation format. Data Product Order #92007 (December 1991).

Hexem, Roger. **Farmland Value Update.** November 1991. February 1992. May 1992. August, 1992.

Quarterly papers prepared from surveys of a national panel of accredited rural appraisers. 4 pp.

Huang, Wen-Yuan. **Estimating Welfare Costs of a Food Safety Regulation Under Risks.** Southern American Agricultural Association Meetings. Lexington, Kentucky. February 1992.

Kim, C.S., John Hostetler, and Gregory Amacher. **A Dynamic Model of Agrichemical Use and the Effect of the Discount Rate on Groundwater Quality.** Missouri Valley Economic Association Meetings. St. Louis, Missouri. February 27-29, 1992.

Lee, Hyunok and Agapi Somwaru. **Share Tenancy and Allocative Efficiency.** Atlantic Economic Society Annual Meetings. Washington, D.C. October 3-6, 1991.

Leston, David. **Point-Nonpoint Source Trading for Controlling Pollutant Loadings to Coastal Waters: A Feasibility Study.** Invited Seminar, Department of Resource Economics, University of Massachusetts. April 23, 1992.

Lin, Biing-Hwan, and Joseph F. Guenther. **Market Openings for Potatoes and Beef in the Asian Pacific Rim Fast Food Industry,** International Agribusiness Management Association Meetings. Oxford, England. May 16-19, 1992.

Maizel, Margaret, Robert L. Kellogg and Don Goss. **Agricultural Use of Pesticides and the Potential for Ground Water Contamination: How Big is the Problem?** Poster presented at the Soil and Water Conservation Society 47th Annual Meeting. Baltimore, Maryland. August 9-12, 1992.

Malik, Arun and Robbin Shoemaker. **Optimal Cost-Sharing Programs to Reduce Agricultural Pollution.** Western Economic Association Meetings. San Francisco, California. July 9-13, 1992.

Michos, John. **Research Agendas for Land Preservation.** The Ownership, Tenure, and Taxation of Agricultural Land Seminar. Robert Schalkenback Foundation, Farm Foundation, ERS. Washington, D.C. October 3-4, 1991.

Moore, Michael and Ariel Dinar. **Water and Land as Quantity - Rationed Inputs In California Agriculture.** Western Agricultural Economics Association Meetings. Colorado Springs, Colorado. July 12-15, 1992.

Osteen, Craig. **Pesticide Use and Policy In the U.S.** New Directions in Pesticide Use: Environment, Economics, and Ethics Conference. Washington, D.C. October 21, 1991.

Osborn, C. Tim. **Options for Expiring Conservation Reserve Program Contracts: CRP Goals and Intent.** Paper prepared for Great Plain Agricultural Council Task Force on future use of CRP lands, April 1992.

Rodgers, Denise. **Leasing Farmland.** The Ownership, Tenure, and Taxation of Agricultural Land Seminar. Robert Schalkenback Foundation, Farm Foundation, ERS. Washington, D.C. October 3-4, 1991.

Sandretto, Carmen, Bull, L. and Delvo, H. **Pesticide Use by Tillage System: Policy Conflicts?** Paper presented at the Soil and Water Conservation Society, 47th Annual Meeting, Baltimore, Maryland. August 9-12, 1992.

Schaible, Glenn D. **Modeling Fixed Allocable Resources In a Primal Optimization (Programming) Multiproduct Technology Framework.** W-178 Meeting. Colorado Springs, Colorado. July 12-15, 1992.

Somwaru, Agapi and George Douvelis. **Interspatial and Intertemporal Comparisons of Agricultural**

Productivity. The Institute of Management Science/Operations Research Society of America (TIMS/ORSA) National Meeting. Orlando, Florida. April 1992.

Tegene, Abebayehu and Fred Kuehler. **A Regression Test of the Present Value Model of Farmland Prices.** San Francisco, California. July 9-13, 1992.

Vandeman, Ann, U. Vasavada, and D. Shank. **The Impact of Integrated Pest Management on Pesticide Use In the United States Vegetable Industry.** Symposium on Sustainable Agriculture. American Chemical Society. San Francisco, California. April 1992.

Weinberg, Marca and Michael Moore. **Water Allocation In California: Endangered Fish Versus Agriculture.** Western Economic Association Meetings. July 9-13, 1992.

Wunderlich, Gene. **Valuing a Public Interest In Private Agricultural Land.** Allied Social Sciences Annual Meetings. New Orleans, Louisiana. January 3, 1992.

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